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#2

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/006,163

DATE: 02/01/2002

TIME: 11:47:54

Input Set : N:\Crf3\RULE60\10006163.raw
Output Set: N:\CRF3\02012002\J006163.raw

## SEQUENCE LISTING

```
3 (1) GENERAL INFORMATION:
      5
             (i) APPLICANT: Lal, Preeti
      6
                            Corley, Neil C.
            (ii) TITLE OF INVENTION: HUMAN SHORT CHAIN DEHYDROGENASE
      8
     10
           (iii) NUMBER OF SEQUENCES: 3
            (iv) CORRESPONDENCE -ADDRESS:
     12
     13
                  (A) ADDRESSEE: Incyte Pharmaceuticals, Inc.
                  (B) STREET: 3174 Porter Dr.
     1.4
                  (C) CITY: Palo Alto
     15
     16
                  (D) STATE: CA
     17
                  (E) COUNTRY: USA
     18
                  (F) ZIP: 94304
                                                     ENTERED
     20
             (V) COMPUTER READABLE FORM:
     21
                  (A) MEDIUM TYPE: Diskette
                  (B) COMPUTER: IBM Compatible
     22
                  (C) OPERATING SYSTEM: DOS
     23
                  (D) SOFTWARE: FastSEQ for Windows Version 2.0
     24
            (vi) CURRENT APPLICATION DATA:
     26
                  (A) APPLICATION NUMBER: US/10/006,163
C--> 27
C--> 28
                  (B) FILING DATE: 04-Dec-2001
     29
                  (C) CLASSIFICATION:
           (vii) PRIOR APPLICATION DATA:
     31
     32
                  (A) APPLICATION NUMBER: US/09/249,241
     33
                  (B) FILING DATE:
     36
          (viii) ATTORNEY/AGENT INFORMATION:
     37
                  (A) NAME: Billings, Lucy J.
     38
                  (B) REGISTRATION NUMBER: 36,749
                  (C) REFERENCE/DOCKET NUMBER: PF-0475 US
     39
     41
            (ix) TELECOMMUNICATION INFORMATION:
     42
                  (A) TELEPHONE: 650-855-0555
                  (B) TELEFAX: 650-845-4166
     43
     44
                  (C) TELEX:
        (2) INFORMATION FOR SEQ ID NO: 1:
     47
             (i) SEQUENCE CHARACTERISTICS:
     49
     50
                  (A) LENGTH: 313 amino acids
     51
                  (B) TYPE: amino acid
     52
                  (C) STRANDEDNESS: single
     53
                  (D) TOPOLOGY: linear
     55
           (vii) IMMEDIATE SOURCE:
     56
                  (A) LIBRARY: PROSNOT01
     57
                  (B) CLONE: 356351
     59
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
```

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PATENT APPLICATION: US/10/006,163 TIME: 11:47:54

Input Set : N:\Crf3\RULE60\10006163.raw
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61 62	Met 1	Ala	Ala	Pro	Met 5	Asn	Gly	Gln	Val	Cys 10	Val	Val	Thr	Gly	Ala 15	Ser
63 64		Gly	Ile	Gly 20	Arg	Gly	Ile	Ala	Leu 25	Gln	Leu	Cys	Lys	Ala 30	Gly	Ala
65	Thr	Val	_		Thr	Gly	Arg			Asp	Thr	Leu			Val	Ala
66 67	Gln	Glu	35 Ala	Gln	Ser	Leu	Gly	40 Gly	Gln	Cys	Val		45 Val	Val	Cys	Asp
68		50	_	_		_	55					60				
69 70	Ser ·65	Ser		Glu	Ser	Glu 70	Val	Arg	Thr	Leu	Phe 75	Glu	Gln	Val	Asp	Arg 80
71 72	Glu	Gln	Gln	Gly	Arg 85	Leu	Asp	Val	Leu	Val 90	Asn	Asn	Ala	Tyr	Ala 95	Gly
73	Val	Gln	Thr	Ile		Asn	Thr	Arq	Asn		Ala	Phe	Trp	Glu	Thr	Pro
74		-		100		•		-	105	-			-	110		
75	Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr
76			115					120					125			
77	Phe	_	Ser	Val	$\mathtt{Tyr}$	Gly		Arg	Leu	Met	Val		Ala	Gly	Gln	Gly
78		130					135					140				
79		Ile	Val	Val	Ile		Ser		Gly	Ser		Gln	Tyr	Met	Phe	
80	145				_	150				_	155		_			160
81	Val	Pro	Tyr	Gly		Gly	Lys	Ala	Ala		Asp	Lys	Leu	Ala	Ala	Asp
82	_		•	-1	165	_	_		<b>a</b> 1	170	_			<b>a</b>	175	<b></b>
83	Cys	Ala	HIS		Leu	Arg	Arg	HIS	_	vaı	ser	Cys	vaı		Leu	Trp
84	D	a1	T1-	180	<b>71</b> -	mh	<i>α</i> 1	T	185	T	a1	mi a	Wat	190	T 0	C1
85 86	Pro	СТА	11e	val	GIU	Thr	GIU	200	Leu	гуѕ	GIU	нтѕ	205	Ата	Lys	GIU
87	Glu	Va 1		Gln	λen	Dro	Val		Tare	Gln	Dho	Lve		Δľa	Phe	Sar
88	GIU	210	пеп	. 6111	ASP	PIO	215	Leu	пуз	GIII	rne	220	361	AIG	riie	261
89	Ser		Glu	Thr	Thr	Glu		Ser	Glv	Lvs	Cvs		Val	Ala	Leu	Ala
90	225		014			230	200		011		235	,				240
91			Pro	Asn	Ile		Ser	Leu	Ser	Glv		Val	Leu	Pro	Ser	
92.					245					250	-1-				255	-1-
93	Asp	Leu	Ala	Arg	Arq	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val
94	•			260		- <u>-</u> :	-		265	-		-	-	270		•
95	Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu
96			275					280					285			
97	Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp
98		290					295					300				
99	Ile	Ile	Ala	Leu	Tyr	Thr	Ser	Lys	Phe							
100						310				•						
	(2)															
104	• • -															
105	• •															
106																
107	, ,															
108																
110																
111			•	-				(OTO	L							
112			(E	3) CI	LONE:	356	35I									

RAW SEQUENCE LISTING DATE: 02/01/2002 PATENT APPLICATION: US/10/006,163 TIME: 11:47:54

Input Set : N:\Crf3\RULE60\10006163.raw
Output Set: N:\CRF3\02012002\J006163.raw

```
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
114
    CTAACTTTGG CCTGGGACTC TGCCCCTCTA CCTCAGCACA GAATCGCCCC GGGTCCTACT
                                                                            60
116
    ACAGAATCAA TCCTTGAACA CTGCCTCCAC GTCGCCGGCT CAATCTGGGC GAGAACCCAG
117
    ACTTCCACCG CAGCCCCGCA ATCTGCAGAC CTCAGCGGCA GCGCAGGTGG CAGACCTGCC
                                                                           180
118
    TCCTTTGCCT GTGAGTCATG GCAGCTCCCA TGAATGGCCA AGTGTGTGTG GTGACTGGTG
                                                                           240
    CCTCCAGGGG TATTGGCCGT GGCATTGCCT TGCAGCTCTG CAAAGCAGGC GCCACAGTTT
                                                                            300
120
    ACATCACTGG CCGCCATCTG GACACCCTTC GCGTTGTTGC TCAGGAGGCA CAATCCCTCG
                                                                           360
121
    GGGGCCAATG TGTGCCTGTG GTGTGCGATT CAAGCCAGGA GAGTGAAGTG CGAACGCTGT
                                                                            420
122
    TTGAGCAAGT GGATCGGGAA CAGCAAGGGC GTCTAGATGT GCTGGTCAAC AATGCTTATG
                                                                            480
123
    CAGGGGTCCA GACGATCCTG AACACCAGGA ATAAGGCATT CTGGGAAACC CCTGCCTCCA
124
    TGTGGGATGA TATCAACAAC GTCGGACTCA GAGGCCACTA CTTTTGCTCA GTGTATGGGG
                                                                            600
125
    CACGGCTGAT GGTACCAGCT GGCCAGGGGC TCATCGTGGT CATCTCCTCC CCAGGAAGCC
                                                                            660
126
                                                                            720
    TGCAGTATAT GTTCAATGTC CCCTATGGTG TGGGCAAAGC TGCGTGTGAC AAGCTGGCTG
                                                                           780
    CTGACTGTGC CCACGAGCTG CGGCGCCATG GGGTCAGCTG TGTGTCTCTG TGGCCGGGGA
128
    TTGTGCAGAC AGAACTGCTG AAGGAGCATA TGGCAAAGGA GGAGGTCCTG CAGGATCCTG
                                                                            840
129
                                                                            900
    TGTTGAAGCA GTTCAAATCA GCCTTCTCAT CTGCAGAAAC CACAGAATTG AGTGGCAAAT
130
    GTGTGGTGGC TTTGGCAACA GATCCCAATA TCCTGAGCCT GAGTGGTAAG GTGCTGCCAT
                                                                           960
131
    CCTGTGACCT TGCTCGACGC TATGGCCTTC GGGATGTGGA CGGCCGCCCC GTCCAAGACT
                                                                          1020
    ATTTGTCTTT GAGCTCTGTT CTCTCACACG TGTCCGGCCT GGGCTGGCTG GCCTCCTACC
                                                                          1080
     TGCCCTCCTT CCTCCGTGTG CCCAAGTGGA TTATTGCCCT CTACACTAGC AAGTTCTAAC
                                                                          1140
    CCTCCTGGTC TGACACTACG TCTCTGCTTG TCTTCTCATT TGGACTTGGT GGTTCGTCCT
                                                                          1200
    GTCTCAGTGA AACAGCAGCC TTTCTTGTTT ACCCATACCC TTGATATGAA GAGAAGCCCT
                                                                          1260
136
                                                                          1320
     CTGCTGTGTG TCCGTGGTGA GTTCTGGGGT GCGCCTAGGT CCCTTCTTTG TGCCTTGGTT
137
     TTCCTTGTCC TTCTTTTTAC TTTTTGCCTT AGTATTGAAA AATGCTCTTG GAGCTAATAA
138
                                                                           1387
139
    AAGTCTA
141 (2) INFORMATION FOR SEQ ID NO: 3:
         (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 323 amino acids
144
              (B) TYPE: amino acid
145
              (C) STRANDEDNESS: single
146
              (D) TOPOLOGY: linear
147
       (vii) IMMEDIATE SOURCE:
149
              (A) LIBRARY: GenBank
150
              (B) CLONE: 2315796
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
153
    Met Gly Val Ile Leu Gln Asp Gln Val Ala Leu Val Thr Gly Ala Ser
155
                                          10
156
     Arg Gly Ile Gly Arg Gly Ile Ala Leu Gln Leu Gly Glu Ala Gly Ala
157
158
                 20
                                      25
     Thr Val Tyr Ile Thr Gly Arg Arg Pro Glu Leu Ser Asp Asn Phe Arg
159
160
                                 40
     Leu Gly Leu Pro Ser Leu Asp Tyr Val Ala Lys Glu Ile Thr Ser Arg
161
                             55
162
     Gly Gly Lys Gly Ile Ala Leu Tyr Val Asp His Ser Asn Met Thr Glu
163
                                              75
164
                         70
     Val Lys Phe Leu Phe Glu Lys Ile Lys Glu Asp Glu Glu Gly Lys Leu
165
                                          90
166
                     85
     Asp Ile Leu Val Asn Asn Val Tyr Asn Ser Leu Gly Lys Ala Thr Glu
167
                                      105
168
```

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169 170	Met	Ile	Gly 115	Lys	Thr	Phe	Phe	Asp	Gln	Asp	Pro	Ser	Phe 125	Trp	Asp	Asp
171 172	Ile	Asn 130		Val	Gly	Leu				Tyr	Tyr	Cys 140		Val	Tyr	Ala
173 174	Ala 145		Met	Met	Val	Glu 150	Arg	Arg	Lys	Gly	Leu 155	Ile	Val	Asn	Val	Gly 160
175 176	Ser	Leu	Gly	Gly	Leu 165	Lys	Tyr	Val	Phe	Asn 170	Val	Ala	Tyr	Gly	Ala 175	Gly
177 178	Lys	Glu	Ala	Leu 180	Ala	Arg	Met	Ser	Thr 185	Asp	Met	Ala	Vaĺ	Glu 190	Leu	Asn
179 180		_	195					200					205	Val		
181 182		210					215					220		Met		
183 184	225					230					235			Thr		240
185 186		_	-		245					250				Lys	255	
187 188	_		·	260					265					Lys 270		
189 190			275					280					285	Ile		
191 192		290		·			295					300		Ala		
193 194	305			Gln	Ile	Lys 310	Leu	Pro	Lys	Trp	Val 315	Ile	Trp	Gln	Ser	Val 320
195	Asn	Arg	ьие													

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/006,163

DATE: 02/01/2002

TIME: 11:47:55

Input Set : N:\Crf3\RULE60\10006163.raw
Output Set: N:\CRF3\02012002\J006163.raw

L:27 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:] L:28 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]